

STN (Reg, Caplus)

10/537,940

11/10/2006

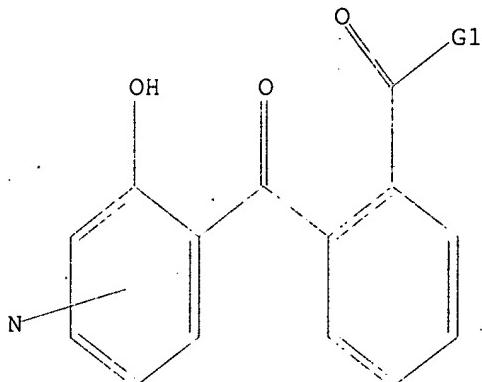
Search Strategy (A=N)

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



G1 O,N

Structure attributes must be viewed using STN Express query preparation.

=> s 11 full

FULL SEARCH INITIATED 11:25:41 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1043 TO ITERATE

100.0% PROCESSED

1043 ITERATIONS

SEARCH TIME: 00.00.01

322 ANSWERS

L2 322 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE

ENTRY

166.94

TOTAL

SESSION

167.15

FILE 'CAPLUS' ENTERED AT 11:25:48 ON 10 NOV 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

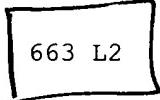
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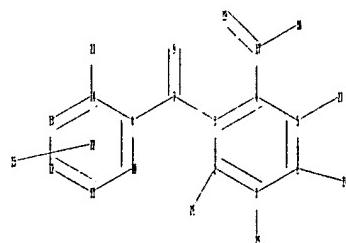
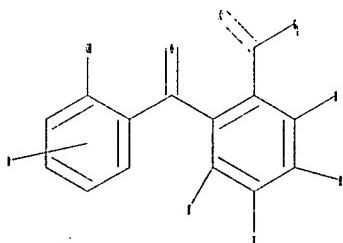
FILE COVERS 1907 - 10 Nov 2006 VOL 145 ISS 21  
FILE LAST UPDATED: 9 Nov 2006 (20061109/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=>.s 12  
L3        
=>

Uploading C:\Program Files\Stnexp\Queries\10537940\2.str



chain nodes :  
7 9 17 18 19 21 23 24 25 26  
ring nodes :  
1 2 3 4 5 6 8 10 11 12 13 14  
ring/chain nodes :  
15  
chain bonds :  
1-25 2-26 3-7 4-17 5-23 6-24 7-8 7-9 14-21 17-18 17-19  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14  
exact/norm bonds :

7-9 14-21 17-18 17-19

exact bonds :

1-25 2-26 3-7 4-17 5-23 6-24 7-8

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 1 : 8 :

G1:O,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:CLASS 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 17:CLASS 18:CLASS 19:CLASS

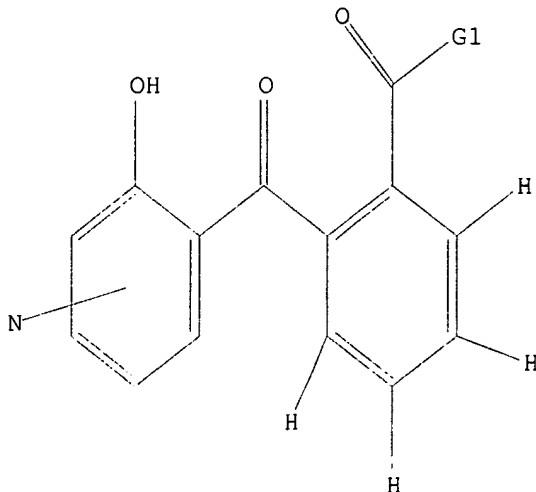
21:CLASS 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS

L4 STRUCTURE UPLOADED

=> d

L4 HAS NO ANSWERS

L4 STR



G1 O,N

Structure attributes must be viewed using STN Express query preparation.

=> fil reg  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
1.38	168.53

FILE 'REGISTRY' ENTERED AT 11:27:40 ON 10 NOV 2006  
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10/537,940

11/10/2006

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 NOV 2006 HIGHEST RN 912878-87-6  
DICTIONARY FILE UPDATES: 9 NOV 2006 HIGHEST RN 912878-87-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s 14 full sub=12  
FULL SUBSET SEARCH INITIATED 11:27:52 FILE 'REGISTRY'  
FULL SUBSET SCREEN SEARCH COMPLETED - 322 TO ITERATE

100.0% PROCESSED 322 ITERATIONS 276 ANSWERS  
SEARCH TIME: 00.00.01

L5 276 SEA SUB=L2 SSS FUL L4

=> fil caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 39.84 208.37

FILE 'CAPLUS' ENTERED AT 11:27:57 ON 10 NOV 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 10 Nov 2006 VOL 145 ISS 21  
FILE LAST UPDATED: 9 Nov 2006 (20061109/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 15  
L6 641 L5

=> d his

(FILE 'HOME' ENTERED AT 11:25:16 ON 10 NOV 2006)

FILE 'REGISTRY' ENTERED AT 11:25:26 ON 10 NOV 2006

L1                   STRUCTURE UPLOADED  
L2                   322 S L1 FULL

FILE 'CAPLUS' ENTERED AT 11:25:48 ON 10 NOV 2006

L3                   663 S L2  
L4                   STRUCTURE UPLOADED

FILE 'REGISTRY' ENTERED AT 11:27:40 ON 10 NOV 2006

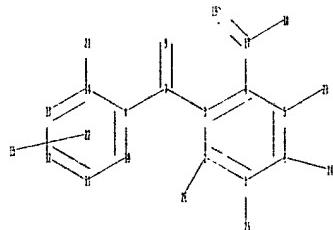
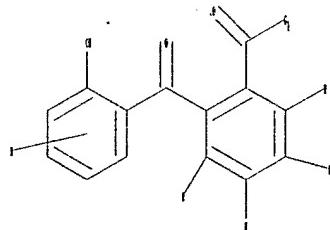
L5                   276 S L4 FULL SUB=L2

FILE 'CAPLUS' ENTERED AT 11:27:57 ON 10 NOV 2006

L6                   641 S L5

=>

Uploading C:\Program Files\Stnexp\Queries\10537940\3.str



chain nodes :

7 9 17 18 19 21 23 24 25 26

ring nodes :

1 2 3 4 5 6 8 10 11 12 13 14 15

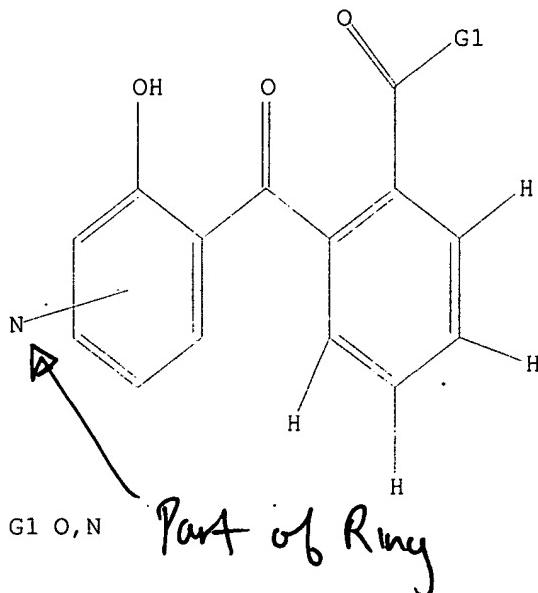
chain bonds :  
 1-25 2-26 3-7 4-17 5-23 6-24 7-8 7-9 14-21 17-18 17-19  
 ring bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14  
 exact/norm bonds :  
 7-9 14-21 17-18 17-19  
 exact bonds :  
 1-25 2-26 3-7 4-17 5-23 6-24 7-8  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14  
 isolated ring systems :  
 containing 1 : 8 :

G1:O,N

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:CLASS 10:Atom  
 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 17:CLASS 18:CLASS 19:CLASS  
 21:CLASS 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS

L7 STRUCTURE UPLOADED

=> d  
 L7 HAS NO ANSWERS  
 L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 17 full  
 REG1stRY INITIATED  
 Substance data SEARCH and crossover from CAS REGISTRY in progress...  
 Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 11:29:59 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 1043 TO ITERATE

100.0% PROCESSED 1043 ITERATIONS  
 SEARCH TIME: 00.00.01

12 ANSWERS

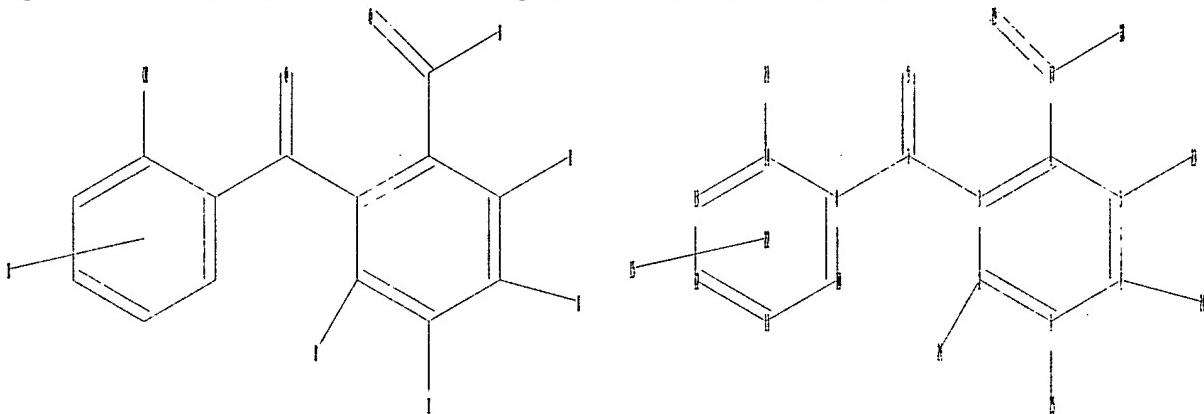
L8 12 SEA SSS FUL L7

L9

42 L8

=>

Uploading C:\Program Files\Stnexp\Queries\10537940\4.str



chain nodes :

7 9 17 18 19 21 23 24 25 26

ring nodes :

1 2 3 4 5 6 8 10 11 12 13 14

ring/chain nodes :

15

chain bonds :

1-25 2-26 3-7 4-17 5-23 6-24 7-8 7-9 14-21 17-18 17-19

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14

exact/norm bonds :

7-9 14-21 17-18 17-19

exact bonds :

1-25 2-26 3-7 4-17 5-23 6-24 7-8

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 1 : 8 :

G1:O,N

Match level :

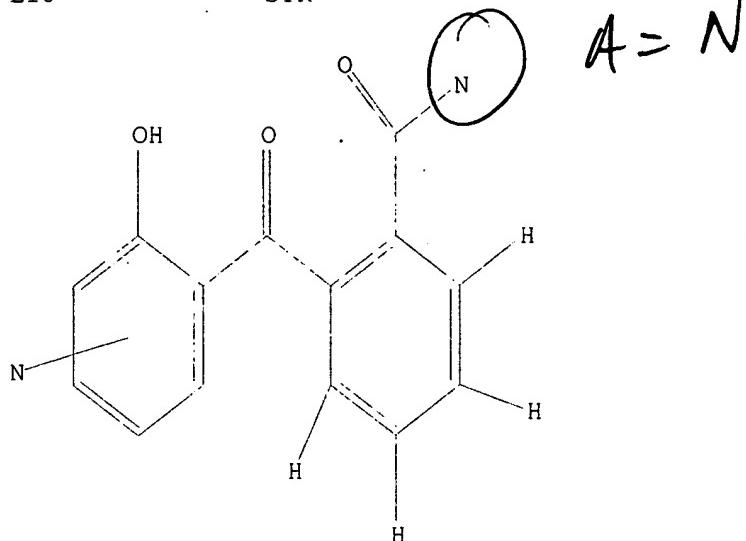
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:CLASS 10:Atom  
 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 17:CLASS 18:CLASS 19:CLASS  
 21:CLASS 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS

L10 STRUCTURE UPLOADED

=&gt; d

L10 HAS NO ANSWERS

L10 STR



G1 O,N

Structure attributes must be viewed using STN Express query preparation.

=&gt; s l10 full sub=L2

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SUBSET SEARCH INITIATED 11:32:53 FILE 'REGISTRY'  
FULL SUBSET SCREEN SEARCH COMPLETED - 7 TO ITERATE100.0% PROCESSED  
SEARCH TIME: 00.00.01

7 ITERATIONS

L11 7 SEA SUB=L2 SSS FUL L10

7 ANSWERS

SUBSET IS IGNORED AS A SCOPE FOR THIS SEARCH  
L12 4 L11

=&gt; d ibib abs hitstr 1-4

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:515467 CAPLUS

DOCUMENT NUMBER: 141:71355

TITLE: Preparation of amino substituted hydroxyphenyl benzophenone derivatives as UV absorbers  
INVENTOR(S): Haase, Juerg; Elhis, Thomas; Borsos, Elek; Mueller, Stefan  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052837	A2	20040624	WO 2003-EP50937	20031203
WO 2004052837	A3	20040910		

W: AS, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CO, CR, CU, CS, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MW, MX, MZ, NI, NO,  
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BM, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UC, ZM, ZW, AM, A2,  
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
TR, BF, BJ, CF, CG, CI, CM, GA, GH, GQ, GW, HL, MR, NE, SN, TD

TG

AU 2003298343	A1	20040630	AU 2003-298343	20031203
EP 1569893	A2	20050907	EP 2003-796081	20031203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003016607	A	20051011	BR 2003-146607	20031203
CN 1726184	A	20060125	CN 2003-80105885	20031203
JP 200509834	T2	20060323	JP 2005-502323	20031203
US 2006018846	A1	20060126	US 2005-537940	20050607

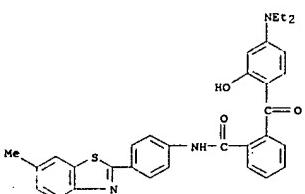
PRIORITY APPLN. INFO.:

*Instant*

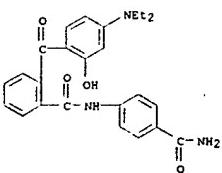
CH 2003-1113 A 20030625  
EP 2003-102297 A 20030725  
WO 2003-EP50937 W 20031203

OTHER SOURCE(S): MARPAT 141:71355  
GI

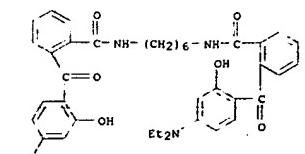
L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
RN 682349-14-0 CAPLUS  
CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-[4-(6-methyl-2-benzothiazolyl)phenyl]- (9CI) (CA INDEX NAME)



RN 682349-15-1 CAPLUS  
CN Benzamide, N-(4-(aminocarbonyl)phenyl)-2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)

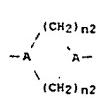
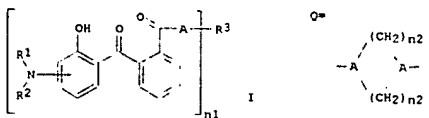


RN 682349-18-4 CAPLUS  
CN Benzamide, N,N'-1,6-hexamethylenbis[2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



AB Described are aminohydroxybenzophenonecarboxamide derivs. of formula (I) (wherein R1, R2 = independently Cl-20 alky, C2-20 alkanyl, C3-10 cycloalkyl, C3-10-C3-C10 cycloalkenyl; or R1 and R2 together with the linking nitrogen atom form a 5- or 6-membered heterocyclic ring; n1 = 1-4; when n1 = 1, R3 = saturated or unsatd. heterocyclic radical,

hydroxy-Cl-C5 alkyl, cyclohexyl optionally substituted with one or more Cl-5 alkyl, Ph optionally substituted with a heterocyclic radical, aminocarbonyl, Cl-5 alkylcarboxy; when n1 = 2, R3 = alkenylene, cycloalkylene or alkenylene radical which is optionally substituted by a carbonyl or carboxy group;

or R3 together with A forms a bivalent radical of the formula Q; wherein n2 = 1-3; when n1 = 3, R3 = alkanetriyl radical; when n1 = 4, R3 = alkanetetrayl radical; A = O, N(R5); R5 = H, Cl-5 alkyl, hydroxy-Cl-5 alkyl). These compds. are useful as UV filters in sunscreen

applications. Preferably for the protection of human and animal hairs and from the damage of UV radiation as well as cosmetic compns. comprising these compds. Thus, a solution of 10.2 g 3-diethylaminobenzoxepin

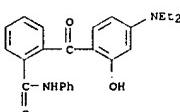
(preparation given) in 20 mL diethylene glycol di-Me ether was added to a suspension of 7.2 g 2-(4-aminophenyl)-6-methylbenzothiazole are suspended in 60 mL diethylene glycol di-Me ether at room temperature under stirring, heated to 90°, and allowed to react for 4 h to give 7.3 g N-[4-(6-methylbenzothiazol-2-yl)phenyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide.

IT 682349-14-OP, N-[4-(6-Methylbenzothiazol-2-yl)phenyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-15-1P, N-[4-Carbamoylphenyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-18-4P, 1,6-Bis[2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-19-5P, N,N-Bis[2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-21-9P, N,N-Bis[2-hydroxyethyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide

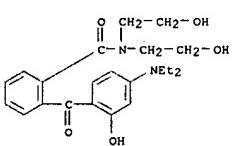
RL: BUU (Biological use, unclassified); COS (Cosmetic use); SPN (Synthetic Preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of amino substituted hydroxyphenyl benzophenone derivs. as UV absorbers in sunscreen applications)

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 682349-19-5 CAPLUS  
CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-phenyl- (9CI) (CA INDEX NAME)



RN 682349-21-9 CAPLUS  
CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:836807 CAPLUS

DOCUMENT NUMBER: 139:327930

TITLE: Organosilicone derivatives of amino hydroxybenzophenones and their use as UVA filters in cosmetic preparations  
 INVENTOR(S): Berg-Schultz, Katja; Huber, Ulrich  
 PATENT ASSIGNEE(S): Roche Vitamins A.-G., Switz.  
 SOURCE: PCT Int. Appl., 27 pp.

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

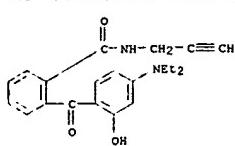
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086340	A1	20031023	WO 2003-EP3095	20030325
W: AE, AG, AL, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
AU 2003226709	A1	20031027	AU 2003-226709	20030325
EP 1494642	A1	20050112	EP 2003-746278	20030325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 200309195	A	20050205	BR 2003-9195	20030325
CN 1646091	A	2005027	CN 2003-808320	20030325
JP 2005539099	T2	20051222	JP 2003-583364	20030325
US 2005255066	A1	20051117	US 2005-511020	20050509
PRIORITY APPLN. INFO.:			EP 2002-8419	A 20020412
				WO 2003-EP3095 W 20030325

AB: The present invention relates to organosilicone derivs. of amino hydroxybenzophenones, a process for their preparation, a cosmetic compns. comprising the organosilicone derivative and the use thereof for protecting hair and/or skin from damage caused by UVA irradiation  
 IT 614755-90-7P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of organosilicone derivs. of amino hydroxybenzophenones)  
 48 sunscreen against UVA radiation for cosmetics)  
 RN 614755-90-7 CAPLUS  
 CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-2-propynyl- (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



$$\Lambda_1 = 1$$

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

PCT 3/25/03

4/n/02 ✓

$$R_1, R_2 = Et$$

$$A = N$$

$$L5 = H$$

$$X \quad R_3 = -CH_2 - C \equiv CH$$

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:830446 CAPLUS

DOCUMENT NUMBER: 140:362521

TITLE: Preparation of amino substituted hydroxyphenyl benzophenone derivatives and their uses as UV filters in sunscreen formulations

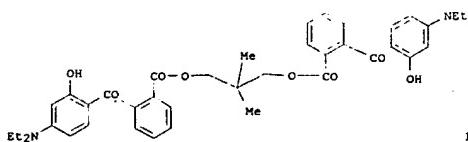
AUTHOR(S): Anon.  
 CORPORATE SOURCE: USA  
 SOURCE: IP.com Journal (2003), 3(8), 40 (No. IPCOM000018721D)

4 Aug 2003  
 CODEN: IJPOBX; ISSN: 1533-0001

PUBLISHER: IP.com, Inc.  
 DOCUMENT TYPE: Journal: Patent  
 LANGUAGE: English  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IP 18721D		20030804	IP 2003-18721D	20030804
PRIORITY APPLN. INFO.:				

GI



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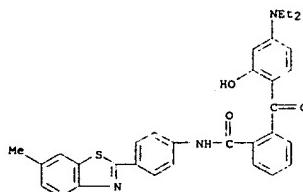
AB: Described are synthesis of amino substituted hydroxyphenyl benzophenone derivs. The compds. are useful as UV filters in sunscreen applications. For example, compound I synthesized by reacting anhydrous 4-diethylamino 2-hydroxy benzophenone carboxylic acid with 2',2-dimethyl-1,3-propanediol was found to be a good UV absorber and was incorporated into sunscreen formulations.

IT 682349-14-0P 682349-15-1P 682349-18-4P  
 682349-19-5P 682349-21-9P  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of amino substituted hydroxyphenyl benzophenone derivs. and their uses as UV filters in sunscreen formulations)

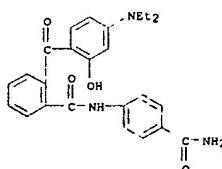
RN 682349-14-0 CAPLUS  
 CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-[4-(6-methyl-2-benzothiazolyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

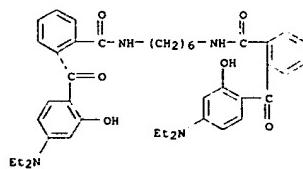
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RN 682349-15-1 CAPLUS  
 CN Benzamide, N-[4-(aminocarbonyl)phenyl]-2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)



RN 682349-18-4 CAPLUS  
 CN Benzamide, N,N'-1,6-hexamethoxybis[2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)



RN 682349-19-5 CAPLUS  
 CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-phenyl- (9CI) (CA INDEX NAME)

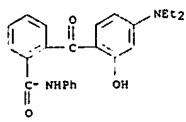
10/537,940

Malhotra et al.

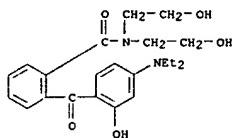
11/10/2006

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



RN 682349-21-9 CAPLUS  
 CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N,N-bis(2-hydroxyethyl)-  
 (9CI) (CA INDEX NAME)



L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:895548 CAPLUS

DOCUMENT NUMBER: 136:38973

TITLE: Phase-change inks containing benzoyl benzamides

INVENTOR(S): Malhotra, Shadi L.; Goodbrand, H. Bruce

PATENT ASSIGNEE(S): Xerox Corporation, USA

SOURCE: U.S. 14 PP.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6328793	B1	20011211	US 2000-632190	20000803
			US 2000-632190	20000803

PRIORITY APPLN. INFO.: MARPAT 136:38973

OTHER SOURCE(S): AB Disclosed is an ink composition comprising (a) a benzoyl benzamide compound; (b) a viscosity-modifying benzoyl-group-containing compound; (c) a colorant; and (d) an optional conductivity enhancing agent.

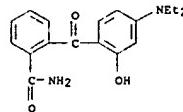
IT 380228-12-6

RL: TEM (Technical or engineered material use); USES (Uses)

(phase-change inks containing benzoyl benzamides)

RN 380228-12-6 CAPLUS

CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)

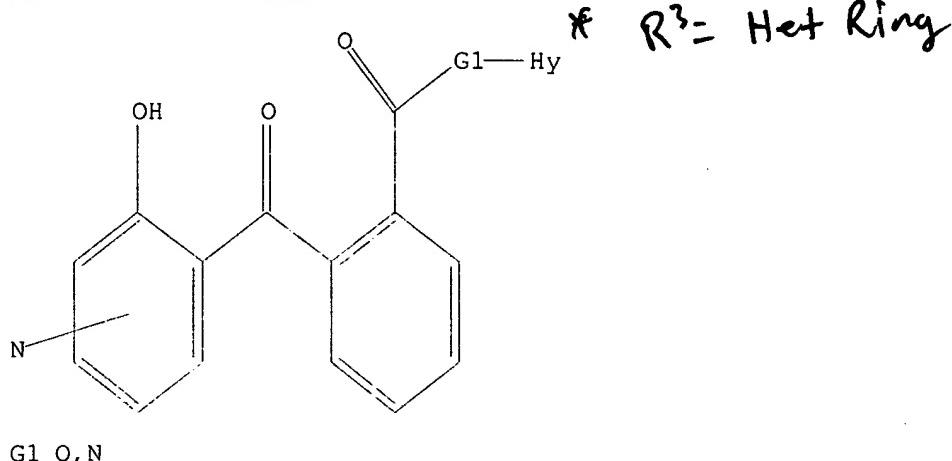


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

$A = N$   
 $R^3 = H \times$

L1

STR



G1 O, N

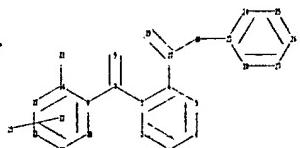
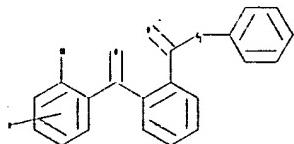
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100.0% PROCESSED 1043 ITERATIONS
SEARCH TIME: 00.00.01
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L2 0 SEA SSS FUL L1

0 ANSWERS

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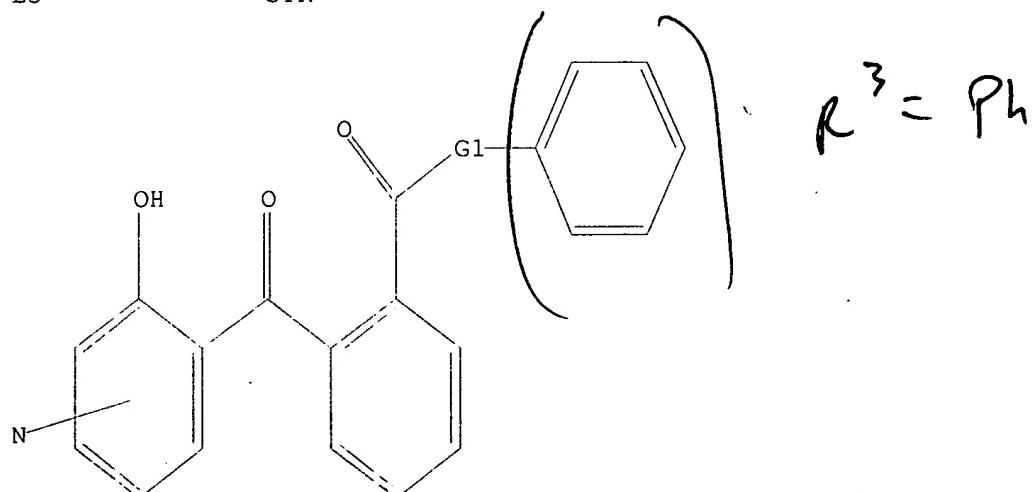
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 ring nodes :  
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 15  
 chain bonds :  
 3-7 4-17 7-8 7-9 14-21 17-18 17-19 18-23  
 ring bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14 23-24 23-28  
 24-25 25-26 26-27 27-28  
 exact/norm bonds :  
 7-9 14-21 17-18 17-19 18-23  
 exact bonds :  
 3-7 4-17 7-8  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 8-10 8-14 10-11 11-12 12-13 13-14 23-24 23-28  
 24-25 25-26 26-27 27-28  
 isolated ring systems :  
 containing 1 : 8 :

G1:O,N

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:CLASS 10:Atom  
 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 17:CLASS 18:CLASS 19:CLASS  
 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom

L3 STRUCTURE UPLOADED

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L3 HAS NO ANSWERS  
L3 STR



G1 O,N

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 190 ITERATIONS  
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7 ANSWERS

L4 7 SEA SSS FUL L3

=> fil caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	335.64	335.85

FILE 'CAPLUS' ENTERED AT 11:47:00 ON 10 NOV 2006  
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 FILE LAST UPDATED: 9 Nov 2006 (20061109/ED)

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<http://www.cas.org/infopolicy.html>

=> s 14  
 L5 3 L4

=> d ibib abs hitstr 1-3

## L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:515467 CAPLUS

DOCUMENT NUMBER: 141:71355

TITLE: Preparation of amino substituted hydroxyphenyl benzophenone derivatives as UV absorbers  
Haase, Juerg; Ehlis, Thomas; Borsos, Elek; Mueller, Stefan

INVENTOR(S): Ciba Specialty Chemicals Holding Inc., Switz.

PATENT ASSIGNEE(S): PCT Int. Appl., 50 pp.

CODEN: PIXKD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052837	A2	20040624	WO 2003-EP50937	20031203
WO 2004052837	A3	20040910		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,  
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SV, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, 2M, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TW, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
TR, BF, BJ, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,

TG	AU 2003298343	A1	20040630	AU 2003-298343	20031203
	EP 1569893	A2	20050907	EP 2003-796091	20031203
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MY, CT, AL, TR, BG, CY, SE, HU, SK				
BR 2003016607	A	20051011	BR 2003-16607		20031203
CN 1726184	A	20060125	CN 2003-80105885		20031203
JP 2006509834	T2	20060323	JP 2005-502323		20031203
US 2006018846	A1	20060126	US 2005-537940		20050607
			EP 2002-406093		20021212
			CA 2003-1113	A	20030625
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PRIORITY APPN. INFO.:

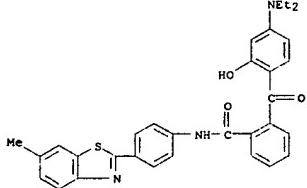
OTHER SOURCE(S): MARPAT 141:71355  
GI

12/12/02

priority  
claimed

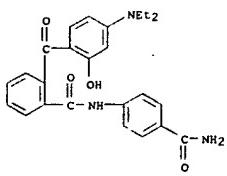
## L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

benzothiazolyl)phenyl)- (9CI) (CA INDEX NAME)



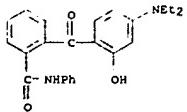
RN 682349-15-1 CAPLUS

CN Benzamide, N-[4-(aminocarbonyl)phenyl]-2-(4-(diethylamino)-2-hydroxybenzoyl)- (9CI) (CA INDEX NAME)



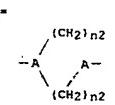
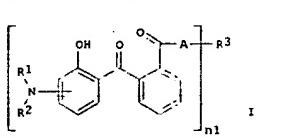
RN 682349-19-5 CAPLUS

CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-phenyl- (9CI) (CA INDEX NAME)



## L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



AB Described are aminohydroxybenzophenonecarboxamide derivs. of formula (I) [wherein R1, R2 = independently Cl-20 alkyl, C2-20 alkenyl, C3-10 cycloalkyl, C3-10 C3-C10 cycloalkenyl; or R1 and R2 together with the linking nitrogen atom form a 5- or 6-membered heterocyclic ring; n1 = 1-4; when n1 = 1, R3 = saturated or unsatd. heterocyclic radical, hydroxy-Cl-5 alkyl, cyclohexyl optionally substituted with one or more Cl-5 alkyl, Ph optionally substituted with a heterocyclic radical, aminocarbonyl, Cl-5 alkylcarboxy; when n1 = 2, R3 = alkylene, cycloalkylene or alkenylene radical which is optionally substituted by a carbonyl or carboxy group; or

R3 together with A forms a bivalent radical of the formula Q; wherein n2 = 1-3; when n1 = 3, R3 = alkanetriyl radical; when n1 = 4, R3 = alkanetetrayl radical; A = O, NR5; R5 = H, Cl-5 alkyl, hydroxy-Cl-5 alkyl]. These compds. are useful as UV filters in sunscreen

applications. Preferably for the protection of human and animal hairs and from the damage of UV radiation as well as cosmetic compns. comprising these compds. Thus, a solution of 10.6 g 3-diethylaminodibenzoxepin (preparation given) in 20 mL diethylene glycol di-Me ether was added to a suspension of 7.2 g 2-(4-aminophenyl)-6-methylbenzothiazole are suspended in 60 mL diethylene glycol di-Me ether at room temperature under stirring, heated to

90°, and allowed to react for 4 h to give 7.3 g N-[4-(6-methylbenzothiazol-2-yl)phenyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-14-0, N-[4-(6-Methylbenzothiazol-2-yl)phenyl]-2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-15-1P, N-(4-Carbamoylphenyl)-2-(4-diethylamino-2-hydroxybenzoyl)benzamide 682349-19-5P, N-Phenyl-2-(4-diethylamino-2-hydroxybenzoyl)benzamide RIL BU (Biological use, unclassified); COS (Cosmetic use); SPN

(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of amino substituted hydroxyphenyl benzophenone derivs. as UV absorbers in sunscreen applications)  
RN 682349-14-0 CAPLUS  
CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-[4-(6-methyl-2-

## L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003-830446 CAPLUS

DOCUMENT NUMBER: 140:362521

TITLE: Preparation of amino substituted hydroxyphenyl benzophenone derivatives and their uses as UV filters in sunscreen formulations

AUTHOR(S): Anon.

CORPORATE SOURCE:

SOURCE: IPCOM000018721D

IP.com Journal (2003), 3(8), 40 (No.

140:362521)

, 4 Aug 2003

PUBLISHER: IP.com, Inc.

DOCUMENT TYPE: Journal; Patent

LANGUAGE: English

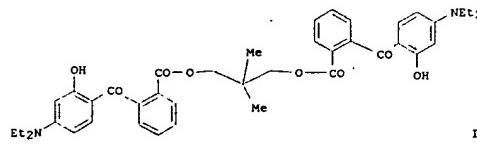
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IP 18721D		20030804	IP 2003-18721D	20030804

PRIORITY APPLN. INFO.:

GI

8/14/03



AB Described are synthesis of amino substituted hydroxyphenyl benzophenone derivs. The compds. are useful as UV filters in sunscreen applications. For example, compound I synthesized by reacting anhydrous 4-diethylamino-2-hydroxy benzophenone carboxylic acid with 2,2-dimethyl-1,3-propanediol was found to be a good UV absorber and was incorporated into sunscreen formulations.

IT 682349-14-0P 682349-15-1P 682349-19-5P RIL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of amino substituted hydroxyphenyl benzophenone derivs. and

their uses as UV filters in sunscreen formulations)

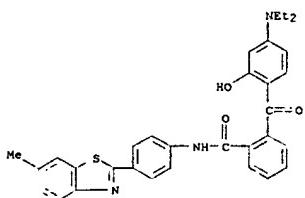
RN 682349-14-0 CAPLUS

CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-[4-(6-methyl-2-benzothiazolyl)phenyl]- (9CI) (CA INDEX NAME)

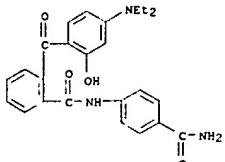
8/14/03

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

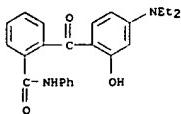
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RN 682349-15-1 CAPLUS  
CN Benzamide, N-[4-(aminocarbonyl)phenyl]-2-[4-(diethylamino)-2-hydroxybenzoyl]- (9CI) (CA INDEX NAME)



RN 682349-19-5 CAPLUS  
CN Benzamide, 2-[4-(diethylamino)-2-hydroxybenzoyl]-N-phenyl- (9CI) (CA INDEX NAME)



Same 3  
compds  
in  
instant

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:123117 CAPLUS

DOCUMENT NUMBER: 94:123117

TITLE: Fluoran derivatives and their use in marking systems

INVENTOR(S): Schmidt, Paul Joseph; Hung, William Ho-Wei

PATENT ASSIGNEE(S): Sterling Drug Inc., USA

SOURCE: Ger. Offen., 50 pp.

CODEN: GMXXBX

DOCUMENT TYPE: Patent

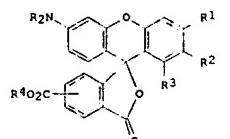
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3018546	A1	19801127	DE 1980-3018546	19800514
US 42714660	A	19810623	US 1979-39017	19790514
US 4298215	A	19811103	US 1980-135855	19800331
			US 1979-39017	A 19790514
			US 1980-135855	A 19800331

GI



11/27/1980

AB Fluoran derivs. (I: R = a nontertiary Cl-4 alkyl; R<sub>1</sub>, R<sub>3</sub> = H, nontertiary Cl-4 alkyl, R<sub>2</sub> must be alkyl when R<sub>2</sub> = H; R<sub>2</sub> = H, optionally substituted amino; R<sub>4</sub> = H, nontertiary Cl-18 alkyl, PhCH<sub>2</sub>, substituted PhCH<sub>2</sub>) are prepared and are used as color formers in thermal and pressure-sensitive systems. Thus, a mixture of trimellitic anhydride [552-30-7] and m-(diethylamino)phenol [91-68-9] was heated in ethylene dichloride-aqueous NH<sub>3</sub> to give 4- [52716-31-1] and 5-carboxy-2-[4-(diethylamino)-2-hydroxybenzoyl]benzoic acid [52716-30-0] and the product was treated with 2-methyl-N-phenyl-p-phenetidine [4058-15-5] in oleum to give the corresponding phthalide derivs., and the phthalide rings were closed and the products were treated with Et<sub>2</sub>SO<sub>4</sub> to give I (R = Et, R<sub>1</sub> = Me, R<sub>2</sub> = PhH, R<sub>3</sub> = H, R<sub>4</sub> = Et), giving a black shade on acid clay.

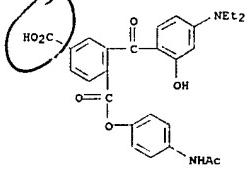
IT 76974-13-5P 76974-14-6P 76974-15-7P  
76987-47-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

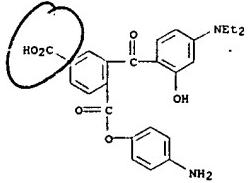
L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
(prep. and ring closure of)

RN 76974-13-5 CAPLUS

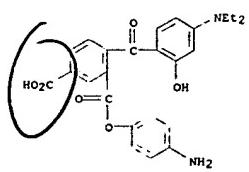
CN 1,4-Benzenedicarboxylic acid, 2-[4-(diethylamino)-2-hydroxybenzoyl]-, 1-[4-(acetylaminophenyl) ester (9CI) (CA INDEX NAME)



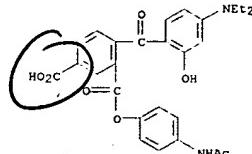
RN 76974-14-6 CAPLUS  
CN 1,4-Benzenedicarboxylic acid, 2-[4-(diethylamino)-2-hydroxybenzoyl]-, 1-(4-aminophenyl) ester (9CI) (CA INDEX NAME)



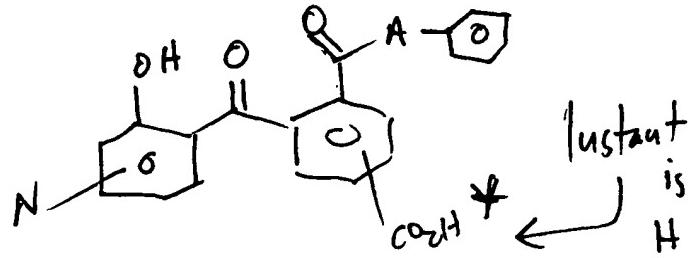
RN 76974-15-7 CAPLUS  
CN 1,3-Benzenedicarboxylic acid, 4-[4-(diethylamino)-2-hydroxybenzoyl]-, 3-(4-aminophenyl) ester (9CI) (CA INDEX NAME)



RN 76987-47-8 CAPLUS  
CN 1,3-Benzenedicarboxylic acid, 4-[4-(diethylamino)-2-hydroxybenzoyl]-,

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
3-[4-(acetylaminophenyl)ester (9CI) (CA INDEX NAME)

All substituted w/  
CO<sub>2</sub>H



STN StructureSearch - claim 27 (Registry / Caply)

10/537,940

11/10/2006

2-7 3-11 7-8 7-13 8-9 10-11 11-12 15-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-17 14-15 15-16 16-17

Match level :

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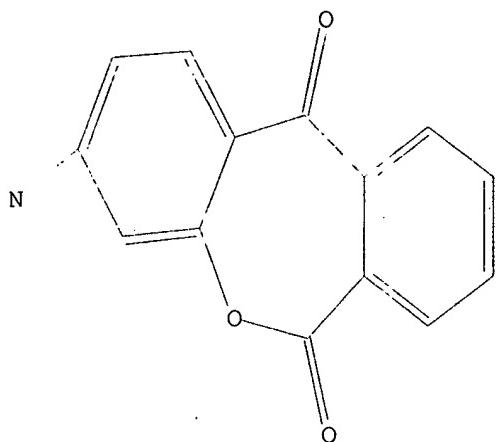
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L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

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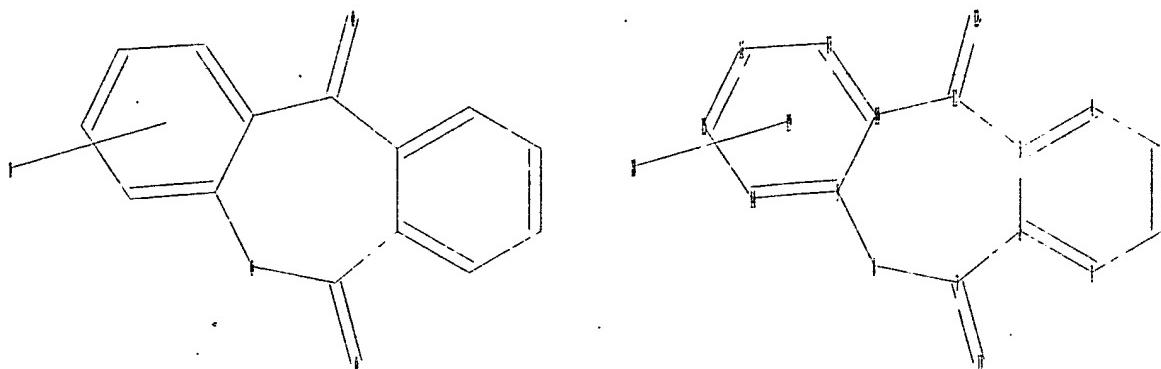
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chain nodes :

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ring nodes :

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ring/chain nodes :

18

chain bonds :

7-13 11-12

ring bonds :

1-2 1-6 2-3 2-7 3-4 3-11 4-5 5-6 7-8 8-9 9-10 9-14 10-11 10-17 14-15

15-16 16-17

exact/norm bonds :

2-7 3-11 7-8 7-13 8-9 10-11 11-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-17 14-15 15-16 16-17

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:CLASS 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:Atom

L3 STRUCTURE UPLOADED

=> d

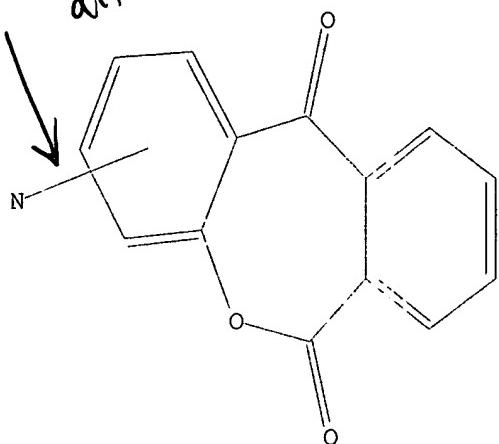
L3 HAS NO ANSWERS

L3 STR

*variable  
attachment*

10/537,940

11/10/2006



Structure attributes must be viewed using STN Express query preparation.

=> s 13 full  
FULL SEARCH INITIATED 10:21:43 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 50006 TO ITERATE

100.0% PROCESSED 50006 ITERATIONS  
SEARCH TIME: 00.00.01

L4 1 SEA SSS FUL L3

=> fil caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
333.88 334.09

FILE 'CAPLUS' ENTERED AT 10:21:47 ON 10 NOV 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE LAST UPDATED: 9 Nov 2006 (20061109/ED)

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11/10/2006

=> s 14  
L5



=> d ibib abs hitstr 1-2



10/537,940

11/10/2006

L5 ANSWER 2 OF 2 CAPIUS COPYRIGHT 2006 ACS on STN (Continued)

